

Report of Test

LLIA000901-012

Catalog Number: P216_X/F11/D61/L411

Pendant mounted, formed steel canopy, formed steel frame with white "lumenate" diffuser, external white steel decorative grille, no enclosure.

One white LED module with clear patterned hemispherical lens below.

One ERP ESS030W-0620-42 LED driver

120.0Vac, 60.00Hz, 0.2125A, 24.94W, 0.978PF, 11.7%THD(i)



Performance Summary

Total Light Output	1490 lm
Luminaire Power	24.9 W
Luminous Efficacy	59.8 lm/W

PREPARED FOR : Lumetta, Inc, 33 Minnesota Avenue, Warwick, RI 02888, USA



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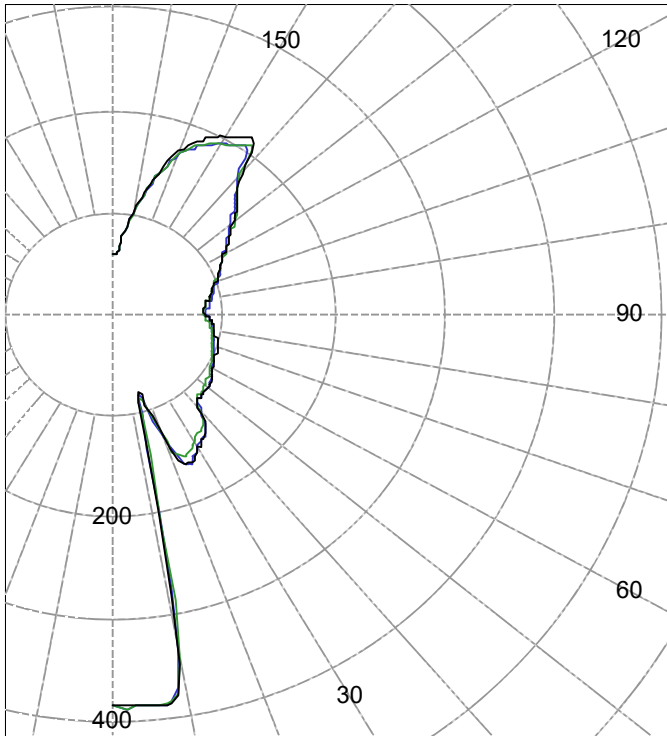
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Legend: C0-Black, C45-Green, C90-Blue (cd)



(Two plane symmetry) C0-C90

INTENSITY SUMMARY (cd)

Gamma	C-Plane					Flux (lm)
	C0	C22.5	C45	C67.5	C90	
0.0	386	386	386	386	386	
5.0	386	386	386	387	386	36
10.0	350	350	346	338	337	
15.0	82	86	89	87	84	37
20.0	122	121	120	120	126	
25.0	160	155	153	155	163	70
30.0	152	146	145	145	151	
35.0	144	138	138	139	145	86
40.0	119	118	118	118	121	
45.0	113	110	110	110	112	86
50.0	112	109	108	109	111	
55.0	109	105	105	105	108	95
60.0	104	101	101	101	103	
65.0	102	99	98	98	101	98
70.0	99	96	96	96	98	
75.0	96	93	93	93	95	99
80.0	93	90	89	89	92	
85.0	89	86	86	85	88	94
90.0	84	82	82	83	85	

AVERAGE LUMINANCE (cd / m²)

Gamma	C0	C45	C90
45.0	1280	1253	1274
55.0	1171	1130	1160
65.0	1072	1035	1063
75.0	1021	986	1010
85.0	985	946	970

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
0-30	143	N / A	9.6
0-40	229	N / A	15.4
0-60	410	N / A	27.5
0-90	702	N / A	47.1
40-90	473	N / A	31.7
60-90	292	N / A	19.6
90-180	788	N / A	52.9
0-180	1490	N / A	100.0

Total Light Output = 1,490 lm

Signed:

Authorized Signatory

Spacing Criterion 0 - 180 0.4
Spacing Criterion 90 - 270 0.4

Date of test 22-Dec-2017
Date of report 22-Dec-2017



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Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
0.0	386	386	386	386	386
2.5	386	387	387	387	387
5.0	386	386	386	387	386
7.5	388	387	386	386	386
10.0	350	350	346	338	337
12.5	160	168	171	169	163
15.0	82	86	89	87	84
17.5	88	90	91	90	90
20.0	122	121	120	120	126
22.5	159	151	148	149	159
25.0	160	155	153	155	163
27.5	157	153	149	152	159
30.0	152	146	145	145	151
32.5	149	142	140	141	148
35.0	144	138	138	139	145
37.5	137	133	132	133	140
40.0	119	118	118	118	121
42.5	113	112	112	112	114
45.0	113	110	110	110	112
47.5	112	109	109	109	112
50.0	112	109	108	109	111
52.5	110	107	107	107	109
55.0	109	105	105	105	108
57.5	107	103	103	103	106
60.0	104	101	101	101	103
62.5	103	100	100	100	102
65.0	102	99	98	98	101
67.5	101	97	97	97	100
70.0	99	96	96	96	98
72.5	98	95	94	94	97
75.0	96	93	93	93	95
77.5	95	92	91	91	94
80.0	93	90	89	89	92
82.5	91	88	88	87	90
85.0	89	86	86	85	88
87.5	87	84	84	83	86
90.0	84	82	82	83	85



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Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
90.0	84	82	82	83	85
92.5	81	81	82	84	85
95.0	83	83	83	86	86
97.5	85	85	85	87	88
100.0	87	87	87	89	90
102.5	90	89	89	91	92
105.0	92	92	92	94	95
107.5	95	95	95	97	97
110.0	99	99	98	100	100
112.5	102	103	102	103	103
115.0	106	107	107	107	107
117.5	111	111	111	111	111
120.0	116	116	116	115	115
122.5	121	121	121	119	119
125.0	127	128	127	124	124
127.5	134	135	134	131	130
130.0	142	144	143	138	138
132.5	150	153	150	147	147
135.0	157	159	157	155	154
137.5	166	167	166	163	162
140.0	181	178	179	177	174
142.5	206	196	206	205	198
145.0	212	200	203	205	202
147.5	206	198	198	199	198
150.0	202	196	193	194	194
152.5	197	193	189	189	188
155.0	190	188	183	183	182
157.5	182	180	176	176	175
160.0	170	169	165	164	164
162.5	154	153	151	149	149
165.0	138	136	134	134	133
167.5	120	118	117	117	116
170.0	101	101	100	100	101
172.5	85	85	84	85	85
175.0	71	71	71	72	72
177.5	62	62	62	62	62
180.0	59	59	59	59	59



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Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
0	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	94	89	84	79	86	81	77	73	67	64	61	55	52	50	43	41	39	34
2	85	76	69	63	77	70	63	58	58	53	49	47	43	40	36	34	31	26
3	77	66	58	51	70	61	53	48	50	45	40	41	36	33	32	28	26	22
4	70	58	50	43	64	53	46	40	44	38	34	36	31	28	28	25	22	18
5	64	52	43	37	58	48	40	34	40	33	29	32	27	24	25	22	19	15
6	59	46	38	32	54	43	35	29	36	30	25	29	24	21	23	19	17	13
7	55	42	33	28	50	38	31	26	32	26	22	26	22	18	21	17	15	12
8	51	38	30	24	46	35	28	23	29	24	19	24	20	16	19	16	13	11
9	47	35	27	22	43	32	25	20	27	21	17	22	18	15	18	14	12	10
10	44	32	24	19	40	29	23	18	25	19	16	21	16	13	17	13	11	9

For absolute test reports, CUs are expressed as a percentage of total lumen output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are lambertian reflectors. 2) Incident flux on each surface is uniformly distributed. 3) The room is spectrally neutral. When luminaires are not evenly distributed throughout the room, or do not exhibit lateral symmetry, CU values may differ from actual performance.

Circle of Light Plot

Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	10.7	2.53	2.53
8.0	6.0	3.38	3.37
10.0	3.9	4.22	4.22
12.0	2.7	5.07	5.06
14.0	2.0	5.91	5.90
16.0	1.5	6.76	6.75



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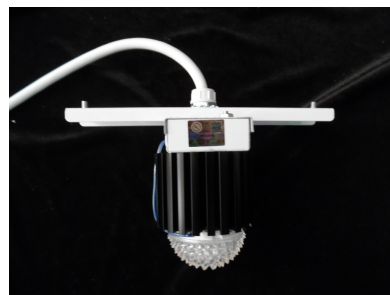
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Test Distance 9.5 m
Test Temperature 24.9 °C

Notes

The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of publications: IES LM-79-08 (Sec. 12), IES LM-16-93, IES LM-58-13, CIE 13.3:1995, CIE 15:2004, ANSI C78.377:2015, ANSI C82.77-10:2014.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE Gamma coordinate system as defined in CIE publication number 121.

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